BRUHATH BANGALORE MAHANAGARA PALIKE

NAME OF WORK : DETAILS ESTIMATE FOR WATER SUPPLY TO DRILLING OF BOREWELLS, ERECTION OF PUMP -MOTOR IN BYATARYANAPURA IN WARD NO - 07 BYATARAYANAPURA, KODIGEHALLI SUB DIVISION

Estimate Cost Rs : 4.95 Lakhs

Sl. No.	Description Of Item	Unit	No	L	B	D	Qty	Rate	Amount
1	Geophysical survey geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the hand pumps, MWS or PWSS by vertical electrical sounding by adopting venner or schlumbergers's method including recconnaisance suevey of geological formation Geophysical investigation of existing ground Water in the vicinity. its quality , quality & acceptabality of the users indicating the location of the site recommendeddepth of casing pipe required to seal the tope unconsolidated formation including an extra depth 1.0 metre in consolidated formation for aquire proposed to be tapped propable yield and other information required including transportation of instrument and accessories to work site, engating								
	Byataryanapura	Each	1				1.00	1900.00	**1900.00**
2	Sinking of Borewell of 165 mm clear using fast hydraulic rig of capacity 250 PSIG & above 900 CMF & abpve in al strata including over burden upto 22 m fixing of casing pipes, collars and cap with necessary cutting and threading including transporation of rig and surpporting vehicles, screws charges and cost of consumable including yield testing at the final depth with a minimum working of compressor for one hour all as specified.,PRE- Bangalore Circle-2011-12, Page No-43, Item No-9.4								
a	0.00 to 50.00 mtrs	Rmtr	1	50.00			50.00	287.00	**14350.00**
b	50mtr to 100.00 mtr		1	50.00			50.00	379.00	**18950.00**
c	100.00 to 150.00 mtr		1	50.00			50.00	422.00	**21100.00**
d	150.00 to 200.00 mtr		1	50.00			50.00	464.00	**23200.00**
e	200.00 to 250.00 mtr		1	50.00			50.00	513.00	**25650.00**
f	250.00 to 300.00 mtr		1	50.00			50.00	550.00	**27500.00**
3	Supply of ISI Mark 175mm Nominal bore ,plain end steel Casing pipe- grade of steel Fee 410 of wall thickness 5.4 mm thick confirming to IS 1387/1933 and manufactured by basic open hearth electric or basic oxygen process in random lenth of 5 to 7mtrs. Both ends threaded Confirming to IS 554/1985, One end fixed with a Socket Confirming to IS 4270:2001 and the other end with Screwed pipes . All pipes shall be reasonably free from defectes. The tube shall be reasonably straight should be with ISI marking, weighing 25.10kg/mtr. (Inclusive of all taxes) (PRED,2010-11 Page No.II item								
a	Casing pipe	Rmt	1	40.00			40.00	1325.00	**53000.00**
4	Additional rate on item No. 2 is allowed for drilling in **over burden** and folling casing pipes beyond 20mtrs, rate at 15% and beyond 30mtrs 30% on basic rate of Rs.287 is allowed (PRED,2010-11 Page NoII item No-9.4)								
a	Above 20 mtrs and Upto 30 mtrs at	Mtrs	1			10.00	10.00	43.05	**431.00**
b	Above 30 mts		1			10.00	10.00	86.10	**861.00**
5	Providing 175 mm dia **MS Collar** (RDED SR page ii, item55)								
		Each	11X1				11.00	150.00	**1650.00**
6	Providing 175 mm dia **MS Cap**(as per RDED SR page ii, item-54)								
		Each	1				1.00	100.00	**100.00**

7	Supply and delivery at site brand new Texmo / Innoval / Lubi / Sabar / Atalanta / Calamal / waterman / Radha make suitable vertical installation in 150mm dia. Borewells comprising of single stage or miultistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage **submersible induction mortor** suitable for operation of 3Ph., 50Hz. 380/44 volts AC supply fitted with required accessories such as suction. casing, suction strainers, sand guard Non return valve etc., complete the pump and motor shall form an integral unit with all the required fittings 15HP 30 stage SE Approved Rate Letter No:2133 date :30/07/2010								
	Byataryanapura	No	1				1.00	52000.00	52000.00
8	Supplying and Drawing 3 core Flat PVC Shalted Submersible Pump Cable Manufactured with Electrolytic Grade Copper with Flexible copper conductor to table 3 class 5 of IS 8130-1984 and Virgen PVC insulation and Sheeated Suitable for working Voltage Upto 1100 Volts as per Page No:49 item No 29C/1 PREE- SR 2011-12								
	Byataryanapura	Mtrs	1	296.00			296.00	151.00	44696.00
9	Supplying and fixing 50mm Non Return Vavle of vertical type of approved make including cost of all materials labour HOM of equipment with all leads Complete as per Specifcation (As Per Rate approved By SE, RDED, Letter No.2081/2010-11 Dt:28-07-2010)								
	Byataryanapura	Nos	1				1.00	1530.00	1530.00
10	Supplying and fixing 50mm GM GaTe Vavle (As Per Rate approved by SE, RDED, Letter No.2081/2010-11 Dt: 28-07-2010)								
	Byataryanapura	Nos	1				1.00	1430.00	1430.00
11	Supplying and fixing 160mm Borewell cap with clampset (As Per Rate approved by SE, RDED, Letter No.2081/2010-11 Dt: 28-07-2010)								
	Byataryanapura	Nos	1				1.00	690.00	690.00
12	Supplying and fixing 50mm GI Union (As Per Rate approved by SE, RDED, Letter No.2081/2010-11 Dt: 28-07-2010)								
	Byataryanapura	Nos	1				1.00	245.00	245.00
13	Supplying and fixing 50mm GI Elbow (As Per Rate approved by SE, RDED, Letter No.2081/2010-11 Dt: 28-07-2010)								
	Byataryanapura	Nos	1x2				2.00	120.00	240.00
14	Supplying and fixing 50mm GI coller Heavy duty								
	Byataryanapura	Nos	35				35.00	1350.00	47250.00
15	Supplying and delivery at site brand new star / Essen / Lotus / Sun shines / Adharsh / GK Controls best indigenous make combined energy meter cum control panel board unit of size 1200x600x350mm minimum mechanically strong vermin and water proof. The unit shall have two detachable doors suitable for opration on 3ph; 50 hz, 380/440 volts, AC supply with spring loaded latch, locking device with a key ribs should be provided inside the door canopy apron and louvers ventilators shall be provided the combined energy meter cum control panel board unit suitable for operation on 3ph, 50 hz, 380/440 volts AC supply shall be consists etc., complete the panel board shall be consist etc., complete the panel board shall be fabricated on single unit in the above componenets panel board for suitable pumpset with star delta staretr out door type								
	Byataryanapura	Nos	1				1.00	10000.00	10000.00
16	Providing and fixing of 50mm G.I pipe 'C' class heavy duty foe erection of submersible pumpset (As per BWSSB Store Issued Rate)								
	Byataryanapura	Mtrs	35	6.00			210.00	402.75	84578.00
17	Erection of combined panel board and meter unit with necessary materials and labour including providing cement concrete foundation bed cont door type etc., complete (As Per Rtae Approved by CE, RDED, Letter No-8650/2003-01 Dt: 8-3-2004)								
	Byataryanapura	Nos	1				1.00	475.00	475.00

18	Supplying of TPST with rewireable porcelain channels in SM encloser 15/32 amps P-346, i-1.I(a), BWSSB SR 2008-09.								
	Byataryanapura	Nos	1				1.00	1350.00	**1350.00**
19	Supplying and fixing 500x500x65mm polished wood board made up not less than 15mm thick plank in front plank one end provided for olding at other end fixing the same of the valve using through bolts and nuts, P-346, I-2(f), BWSSB SR 2008-09.								
	Byataryanapura	Nos	1				1.00	275.00	**275.00**
20	Supplying and fixing LED Type panel board indicating lamp with required colour suitable for 220 v AC 50Hz 12/24 V DC Group 'B'. P-354, I-35(b), BWSSB SR 2008-09.								
	Byataryanapura	Nos	1	3.00			3.00	350.00	**1050.00**
21	Supplying and drawing each PVC insulated 650/100 V grade wire in the conduct (Open or Concealed system of wiring) 7/20 or 7/36 copper wire. P-332, I-20, ii(d), BWSSB SR 2008-09.								
	Byataryanapura	Nos	1	20.00			20.00	25.00	**500.00**
22	Supplying, fixing and wiring heavy duty low voltage capacitors confirming to I 2834, 3 PHASE 400/440 Volts grade for power factor improvement of rotating machinery capacitor in KVAR - rating Nos 2 KVAR Capacity P-354, I-34(a), BWSSB SR 2008-09.								
	Byataryanapura	Nos	1				1.00	350.00	**350.00**
23	Supplying and fixing miniature Circuit breakers on existing MCB distribution boards using necessary fixing materials and wiring complete as required P-350, I-13 (E, a), BWSSB SR 2008-09.								
	Byataryanapura	Nos	1				1.00	1075.00	**1075.00**
24	Supplying, fixing, wiring earth electrode for grounding conduits, LC cutouts and other equipments on the meter board using 40mm dia 2.90mm thick GI pipe 2.50m long buried in a pit. The pit should be filled with equal proportion of solt and charcoal 150mm alround the pipe to complete depth. the connection from the pipe to the conduct etc., is to be established through GI wire of size as per ISI specifications 7.3.3 IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16								
	Byataryanapura	Nos	1				1.00	1500.00	**1500.00**
25	Supplying and fixing class A (medium duty) GI pipe wall thickness not less than 3.25mm								
	Byataryanapura	Nos	1	10.00			10.00	220.00	**2200.00**
26	Supply 1.1 KV class UG cable from nearest BESCOM pole to panel board including earth work and road restoratio 4 core 16 sqmm. P-378, I-10(d), BWSSB SR 2008-09.								
	Byataryanapura	Mtrs	1	35.00			35.00	150.00	**5250.00**

27	Labour charges for laying 1.1 KV class UG cable when supplied by agencies in existing trenches GI pipe / stoneware pipe/ on pole as required, P-379, I-77 (a), BWSSB SR 2008-09.								
	Byataryanapura	Mtrs	1	35.00			35.00	5.00	175.00
28	Digging of trench of 0.6m deep x 0.5m wide refilling the trench to the required level and consolidating etc., complete P-379, I-12 (b), BWSSB SR 2008-09.								
	Byataryanapura	Mtrs	1	30.00			30.00	50.00	1500.00
29	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class UG cable filled with neccesary bitumen / insulating compound complete with termiinalas, clamps, bolts, nuts, washers etc., P-380, I-16(b), BWSSB SR 2008-09.								
	Byataryanapura	Nos	1				1.00	240.00	240.00
30	Supplying and fixing of porcelain fuse channel with cut-out on existing / new wooden panel using neccesary nuts, bolts and washers etc., complete P-32, I-3 (b), PWD ELECTRICAL SR 2010-11.								
	Byataryanapura	Nos	1	6.00			6.00	219.00	1314.00
31	BESCOM Deposit charge and	L.S	1				1.00	14000.00	14000.00
32	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc., in the Asphalt surface road. (Pg. No 267, I.No-37.38)								
	Byataryanapura	Cum	1	50.00	0.30	0.15	0.15	237.44	36.00
33	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc., in the Cement concrete road. (Pg. No-267, I.No-37.40)								
	Byataryanapura	Cum	1	50.00	0.30	0.15	2.25	497.14	1119.00
34	Earthwork excavation for foundation of buildings water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. Noll KBS								
	Byataryanapura	Cum	1	50.00	0.30	0.30	4.50		
							4.50	198.22	892.00
35	Providing and installing at site of work P.V.C pipees including cost of pipes and specials and labour including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not leass than 15 cms with gravel or selected earth available from the excavation etc., complete								
	Byataryanapura	Rmt	1	70.00			70.00	117.00	8190.00
37	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. Including cost of all labour complete as per specification. (Pg. No-6, I.No-2.11)								
		Cum	Same As Item No - 34				4.50	53.00	239.00

AE/EE

EE (OTP Div.)

38	Disposing of excavated earth to the final place of disposal with all lead and lift and as directed by the Engineer in charge of the work. (Lead up to 15.00 KM)									
		Cum	Same as Item No- 32 & 33					2.40	106.85	256.00
39	Transportation of pumping machineries PRE SR 2011-12 PG 51/10.3.19							2.00	850.00	1700.00
40	Erection of Pumping machineries PRE SR 2011-12 PG 51/10.3.20							1.00	850.00	850.00
41	Miscellanious and rounding off							L.S		19113.00
									TOTAL	495000.00

CERTIFICATE:

1 Certified that the provisions made in this modified estimate is adequate and quite necessary.

2 Certified that the estimate is based on S.R.2013-14

3 The work spot has been inspected by me and the work is necessary.

JUNIOR ENGINEER
WARD NO - 7

ASSISTANT EXECUTIVE ENGINEER
KODIGEHALLI SUB DIVISION

EXECUTIVE ENGINEER
BYATARAYANAPURA DIVISION

Technical Sanction for Rs. 4.95 Lakhs
Four Lakhs Ninety Five Thousand only
P-1802
131/14, 29/10/14
Registered as TS/EE/131/14-15 Dt. 29/10/14
to conditions laid in the enclosed memo.
No:
EE
AEE/JE

Technical Sanction for Rs. 4.95 Lakhs
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52/29-10-14
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EE (BTP. Div.)
AEE/JE